

Project-Based Learning Model in Macrame Learning Majoring in KKBT at SMK Negeri 1 Ampek Angkek

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ABSTRACT: This research is motivated by the existence of incompatibility with learning syntax, some syntax is not applied in learning activities. Observations that have been carried out at SMK Negeri 1 Ampek Angkek, especially class XI majoring in Creative Batik and Textile Craft (KKBT) found several phenomena in learning activities. These phenomena include lack of finding their own information for macrame learning, less active learning, because some students play cell phones when learning takes place. In addition, student concentration is also lacking and this certainly reduces the meaning of active and effective learning. The students tend to learn only to receive knowledge from the teacher, without adding knowledge by taking the initiative to search for themselves from various other sources, making students passive in learning. Macrame learning will be more effective if using the Project Based Learning (PjBL) model. PjBL as an active learning method, will increase student engagement and understanding. The research method used is qualitative which is a descriptive study of macrame learning using the PjBL model. Researchers acted directly in the field with data collection methods in the form of observation, interviews, and documentation. The results of this study indicate that the macrame learning process using the PjBL model produces works in the form of hanging pot wall hangings and macrame wall hangings, with active learning involving all students in the macrame learning process. The work that has been completed by class XI students majoring in Creative Batik and Textile Craft (KKBT) is very feasible to become a product that is valuable or quite good and in accordance with the design made before.

KEYWORDS -Macrame, Learning, PjBL Model, Syntax

I. INTRODUCTION

In the teaching and learning process, it is important to determine the right learning model, in order to facilitate and be effective for students in participating in learning. Project Based Learning (PjBL) has proven effective in developing critical thinking skills and problem solving skills in students. In accordance with the opinion (Rahmawati et al., 2023) shows that Project Based Learning (PjBL) can improve critical thinking skills. Weaving learning is project-based learning applied to students at SMK N 1 Ampek Angkek. By actively involving students in projects, Project Based Learning (PjBL) increases their ability to face challenges, and fosters independence and enthusiasm in learning (Chamidah et al., 2024). In Project Based Learning (PjBL), the project becomes the center of learning. Learners actively explore, analyze, and interpret information to produce various learning outcomes. (Pratiwi KP, 2018).

Project Based Learning (PjBL) directs learners to investigate in depth a topic that is relevant to everyday life (Damayanti, 2023). The steps of implementing project-based learning include the stages of observing phenomena, formulating core questions, planning projects, scheduling projects, monitoring student progress, and evaluating results and experiences (Afriani&Harjono, 2023). Project-based learning begins with a problem

that encourages students to seek, process, and integrate new knowledge through direct experience (Baharuddin et al., 2021).

Based on observations made at SMK Negeri 1 Ampek Angkek, in learning activities that produce products in SMK, especially class XI majoring in Creative Batik and Textile Craft (KKBT), several phenomena were found in learning activities. These phenomena include lack of finding their own information for macrame learning, less active learning, because some students play cell phones when learning takes place. In addition, student concentration is also lacking and this certainly reduces the meaning of active and effective learning. The students tend to learn only to receive knowledge from the teacher, without adding knowledge by taking the initiative to search for themselves from various other sources, making students passive in learning. In order for learning objectives to be achieved easily, it is necessary to apply the right learning model. An interesting learning model will make students more focused and understand the material well. One of the effective models in the project-based learning process is Project Based Learning (PjBL).

When making observations in macrame learning, the syntax of the PjBL model has not been implemented, so that students lack understanding and are passive in macrame learning. Based on this reality, it is necessary to carry out research actions against the background of existing problems, by implementing the Project Based Learning model in the KKBT Department at SMK Negeri 1 Ampek Angkek.

II. METHOD

This research was conducted using a qualitative method that aims to examine the Project Based Learning (PjBL) model in teaching and learning activities in macrame learning at SMK Negeri 1 Ampek Angkek in class XI KKBT. There are two types of data that will be used, namely primary data and secondary data. Primary data sources are obtained directly through interviews with Mr. Gusti Kamal as the principal, Mr. Asril as the macrame class teacher and 4 students from the KKBT department at SMK Negeri 1 Ampek Angkek. Secondary data sources are obtained indirectly but from documents in the form of archives at school, and related teachers.

III. RESULTS

3.1. Application of Project Based Learning (PjBL) model in macrame learning in class XI KKBT

Macrame learning in class XI KKBT SMK Negeri 1 Ampek Angkek at the time of the research used the Lark's head knot technique, square knots, and double hitch knots. The macrame learning process at SMK Negeri 1 Ampek Angkek is aimed at students of class XI KKBT. Macrame learning in class XI KKBT is carried out using a Learning Implementation Plan (RPP) that is guided by the 2013 Curriculum, namely the Project Based Learning (PjBL) model. Implementation of practical learning using the Project Based Learning (PjBL) model at the first meeting with macrame material, the time given in learning each meeting is 2 x 45 minutes in macrame learning in class XI KKBT.

3.1.1. Meeting I

The first meeting was held on April 18, 2023, the researcher saw the macrame learning process brought by the teacher in class XI KKBT on the topic of macrame.

3.1.1.1. Early activities

The initial activity begins with the teacher greeting the students and is followed by a prayer led by the class leader. The teacher explains the learning objectives. Before proceeding to the core activities, the teacher first gives an overview of macrame and asks basic questions about macrame and then conveys learning objectives to students. The researcher saw that the teacher arranged project planning with students to make an agreement. The initial activity is carried out for 20 minutes.

3.1.1.2. Core Activities

The core activities were carried out on May 02, 2023 and the learning duration was 60 minutes. The teacher showed various macrame products that had been made by the previous batch and explained the techniques of macrame. The teacher assigns each student

to make a design for the macrame that will be made. The following student designs can be seen in the picture below:



Figure 1. Making designs

Macrame Design 1

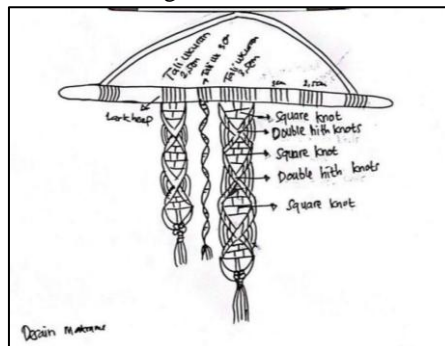


Figure 2. Macrame design by Mutiara

In this first design, students made half the design because the left and right knots were the same

Macrame Design 2

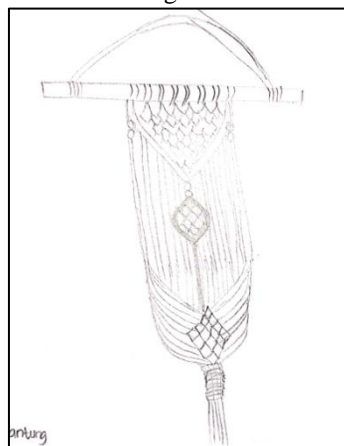


Figure 3. Macrame design by Putri Rahmadani

Macrame Design 3



Figure 4. Macrame design by Mila Marhevi

Each student created the same design and was given the freedom to choose between the three designs.

3.1.1.3. Closing activities

The closing activity lasted for 15 minutes, the designs that had been made by the students were collected to the teacher, and the teacher prepared the class to pray before leaving the classroom.

3.1.2. Meeting II

In the implementation of learning on May 09, 2023 in this meeting, the teacher compiles a project planning schedule that will be made products with students and continued with learning activities on knot techniques that will be used during practice. At this meeting, the researcher saw that the teacher provided the tools and materials that students would use when practicing macrame.

The tools and materials used in making macrame are 4 meters of cotton rope, cotton macrame rope is usually used to make hanging pots and wall hangings, this cotton rope will be cut into pieces with a size of 3.5 meters as many as 6 pieces of rope and 2.5 meters as many as 12 pieces of rope. Scissors will be used to cut the rope to the required length. To measure the cotton rope to the required length, you can use a ruler. Next, provide teak wood twigs or other twigs that are suitable for making macrame, twigs that will be used to make head knots (Larks head) on the twigs.



Figure 5. Distribution of macrame tools and materials

3.1.3. Meeting III

This meeting was held on May 16, 2023. The researcher saw the teacher carrying out practical learning with students making macrame works in the form of hanging pot wall hangings. The

teacher gave direct directions to students when practical learning took place, and students followed the directions of the teacher. The researcher saw the teacher monitoring students in carrying out the practice of making macrame and correcting the knots of the students if there were wrong. This learning process provides knowledge and skills in making craft products in the form of macrame.



Figure 6. Macrame learning practice



Figure 7. Continue the practice of making macrame

3.1.4. Meeting IV

This meeting was held on May 30, 2023. The researcher saw the teacher testing the students' work when the students' work was almost 100% complete by looking at the suitability of the design of the students with the work that the students made and the accuracy of the knots from the students. At this meeting the teacher evaluated the students, and gave directions to the students to continue making macrame practice until it was completed into a product.

3.2. Learning outcomes of the PjBL model in macrame learning in class XI KKBT SMK Negeri 1 Ampek Angkek

The results of the macrame work, namely hanging flower pots and wall hangings from class XI KKBT, show that students follow the learning in this practice. The more frequent practice in making macrame, the easier it will be to add skills to make this macrame work, because students lack the initiative to develop ideas in making macrame. Here are the macrame works of the XI KKBT class students:

Macrame work I



Figure 8. Hanging pot macrame work

Macrame work I hanging flower pot on the wall is the work of Mutiara Salsabila. This work functions as a hanging flower pot on the wall. The materials used are 4mm cotton yarn, and wooden branches as hangers. The knots applied to the work begin with the Lark's head knots, the initial knot is used to tie the rope to the wood as a ring, for further formation using the Half knots knot is a knot used to create a spiral shape, to create a spiral shape starting from the right side and repeating with the opposite side of the left side, done repeatedly until a macrame knot is formed according to the design.

The next step is to make Half hitch knots, this knot is used to create diagonal or wave shapes in macrame works. Double hitch knots are the same knots as half hitch knots, but are done 2 or more times so that the rope is stronger to apply these knots can follow the design that has been made by students to become macrame works. Judging from the macrame works produced by students, they have been able to master the macrame knots taught by the teacher, the macrame knots are neat and in accordance with the form of knots taught, the shape of the work is also in accordance with the design made by the students.

Macrame work II



Figure 9. Hanging pot macrame work of XI KKBT student assignment

The work above functions as a hanging flowerpot with one pot. The materials used are 3mm cotton yarn and dowel wood or round wood as a hanger. The knots applied to the work begin with Lark's head knots, the initial knot is used to tie the rope to the wood as a ring, for further formation using Double hitch knots are knots used to make diagonal shapes by starting from the right edge of the thread leading down in a conical manner and from the left edge in the same way, when the left and right threads meet insert macrame beads into the thread rope for additional decoration in making macrame works according to the design.

The next step is to make double hitch knots, which is the same knot as the half hitch knots, but done with 2 knots to make the rope stronger. To apply these knots produced by students, researchers see that students are able to master the macrame knots taught by the teacher and can follow the design that has been made by students to become macrame works. The macrame knots are neat and in accordance with the shape of the knots taught, the shape of the work is also in accordance with the design made by the students.

Macrame work III



Figure 10. Macrame wall hanging

The work above functions as a wall decoration for the interior of a room. The materials used are 3mm cotton yarn and wood shaped as a gonjongrumahgadang for the hanger. The knots applied to the work begin with Lark's head knots, the initial knot is used to tie the rope to the wood as a ring, for further formation using the Chinese crown knot is a knot used to make the shape of the thread pointing downwards in a wide manner repeated in the same way up to 30 triangular Chinese crowns, then with the double hitch knots technique made in a horizontal direction repeated up to 2 times and with the same technique done as the previous method.

The next step is to make single knots in the left and right directions which are made by extending downwards, then make square knots in the shape of leaves as many as 3 leaf shapes of the same color. To apply these knots produced by students, researchers see that students are able to master the macrame knots taught by the teacher and can follow the designs that have been made by students to become macrame works. The macrame knots are neat and in accordance with the shape of the knots taught, the shape of the work is also in accordance with the design made by the students.

Macrame work IV



Figure 11. Macrame wall hanging

The work above functions as a wall decoration for the interior of a room. The materials used are 3mm cotton yarn and wood shaped as a gonjongrumahgadang for the hanger. The knots applied to the work begin with Lark's head knots, the initial knot is used to tie the rope to the wood as a ring, for further formation using the Chinese crown knot is a knot used to make the shape of the thread pointing downwards in a wide manner repeated in the same way up to 30 triangular Chinese crowns, then with the double hitch knots technique made in a horizontal direction repeated up to 2 times and with the same technique done as the previous method.

The next step is to make single knots in the left and right directions made by extending downwards, then students succeed in making leaf-shaped square knots as many as 3 leaf shapes with different colors from macrame III works. To apply these knots produced by students, researchers see that students are able to master the macrame knots taught by the teacher and can follow the designs that have been made by students to become macrame works. The macrame knots are neat and in accordance with the shape of the knots taught, the shape of the work is also in accordance with the design made by the students.

IV. DISCUSSION

Based on the results of macrame learning research using the Project Based Learning (PjBL) model from the first meeting to the fourth meeting, researchers were able to focus on improving students' critical thinking skills and actively involving students in the learning process. This research focuses on macrame learning. Student activeness in the classroom provides many benefits, including the development of critical thinking skills, independence, and effective problem solving. This will prepare students to face various life challenges in the future. The opinion of (Damayanti, 2023) that, the Project Based Learning (PjBL) model creates a collaborative and student-centered learning environment, where they are actively involved in completing projects that are meaningful and connected to everyday life.

Many studies have been conducted, one of which is from (Azzahra et al., 2023) with the results of the study showing a significant influence between the application of the Project Based Learning (PjBL) model on improving students' creative thinking skills. The next research was conducted by (Mutawally, 2021) with the research results that project-based learning provides students with direct experience in planning interactive and fun learning. The results of research from (Nurhidayah et al., 2021) show that the application of the PjBL model is generally effective in improving student learning achievement and training their critical thinking skills in solving problems. Furthermore, research by (Natty et al., 2019) revealed the results of his research showing that the Project Based Learning learning model is effective in increasing student creativity and learning achievement. The findings of previous research provide a basis for researchers to investigate the feasibility and effectiveness of Project Based Learning (PjBL) as a learning model to increase students' active participation. Findings from previous relevant studies support that, Project Based Learning (PjBL) is proven to be effective in increasing student activeness, as this model places students at the center of learning. Students are responsible for the entire learning process, from research to presentation, while the teacher acts as a guide.

V. CONCLUSIONS

Based on the results of observations and interviews and analysis of the macrame learning process in class XI KKBT using the Project Based Learning (PjBL) model at SMK Negeri 1 Ampek Angkek, it was proven effective. From the results of the study, it can be concluded that the Project Based Learning (PjBL) model significantly increases student activeness, this is due to the student-centered learning approach. This research supports the use of Project Based Learning (PjBL) because it is proven to increase students' understanding of teaching materials. The student activeness generated by this model contributes to improved learning outcomes and prevents monotonous learning. The various activities in Project Based Learning (PjBL) facilitate understanding of the material.

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